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VOL. XXXV, NO. 19, FEBRUARY 18, 1957 . . . *To Know This World, Its Life*

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YOUNG FINGERS in Srinagar learn the old method of spinning wool. Kashmiris no longer weave their famed shawls, but many of their textiles still delight the world

NATIONAL GEOGRAPHIC PHOTOGRAPHER VOLKMAR WENTZEL

UMI

GAY NOTES of a Ladakh flute, jaunty Tibetan cap liven thin Himalayan air

green valleys seems remote from all world conflict. To the north and east of the Vale, the sub-Tibetan Himalayas push snowy peaks as high as 19,000 feet. Clouds often obscure the frozen summit of K-2—28,250 feet high, the world's second highest mountain.

A feel of mystery grips the visitor in cold, lofty Ladakh district, 46,000 square miles of Himalayan country viewed by few Westerners. Beyond lies Tibet. Scattered villages hold Mongolians whose lungs are used to thin air, whose eyes seem always focused on barren stretches. Their lips move slowly before ancient Buddhist prayer wheels, or sip powdered barley mixed with tea and rancid butter.

But by far the largest concentration of Kashmir's population (over 4,000,000) crowds into the verdant Vale. Predominantly Moslem, they like to think of themselves as the *true* Kashmiris. The Jhelum River twists past slopes alive with Kashmiri farms, stately poplars, almond trees in bloom, the songs of bright-colored birds. Dropping from the slopes of mountains, the river is a whispering stream of silver. Rugged herders move their goats through alpine fields. Their flocks give milk and produce fine wool for carpets. Cashmere shawls no longer come from Kashmir.

The Jhelum flows beneath the seven bridges of Srinagar, Kashmir's capital. Here it is Main Street. Kashmiris in tight skullcaps and flowing robes paddle

DARK EYES of Kashmiri youngsters widen in wonder as a deft Srinagar potter works

Mountains loom beyond Srinagar to mark Kashmir's Vale

Kashmir INDIA OCCUPIES "PARADISE"

Photographs by National Geographic Photographer Volkmar Wentzel

"OUT of the darkness, one comes into the light, and there, far below, lies the Vale of Kashmir, like some wonderland of our dreams, encircled by high mountains that guard it jealously from intrusion." So wrote India's Prime Minister Nehru, describing an approach to Kashmir through a mountain tunnel.

Behind the mountain to the south, sprawl India's steaming northern plains. To the west, Pakistan's fertile fields of corn and wheat draw life from three great rivers whose sources lie in Kashmir. Today, both Pakistan and India lay claim to Kashmir. Long years of dispute have brewed serious internal tensions in the two neighboring countries. The dispute lies before the United Nations Security Council, which wants a plebiscite in Kashmir—a vote by the Kashmiris themselves to decide the question. Meanwhile India has occupied the land.

The Vale of Kashmir covers an area only 84 miles long and an average of 24 miles wide. Yet the whole of Kashmir is about the size of Kansas. While neighbors feud over it, much of this land of wild Himalayan ranges and plunging

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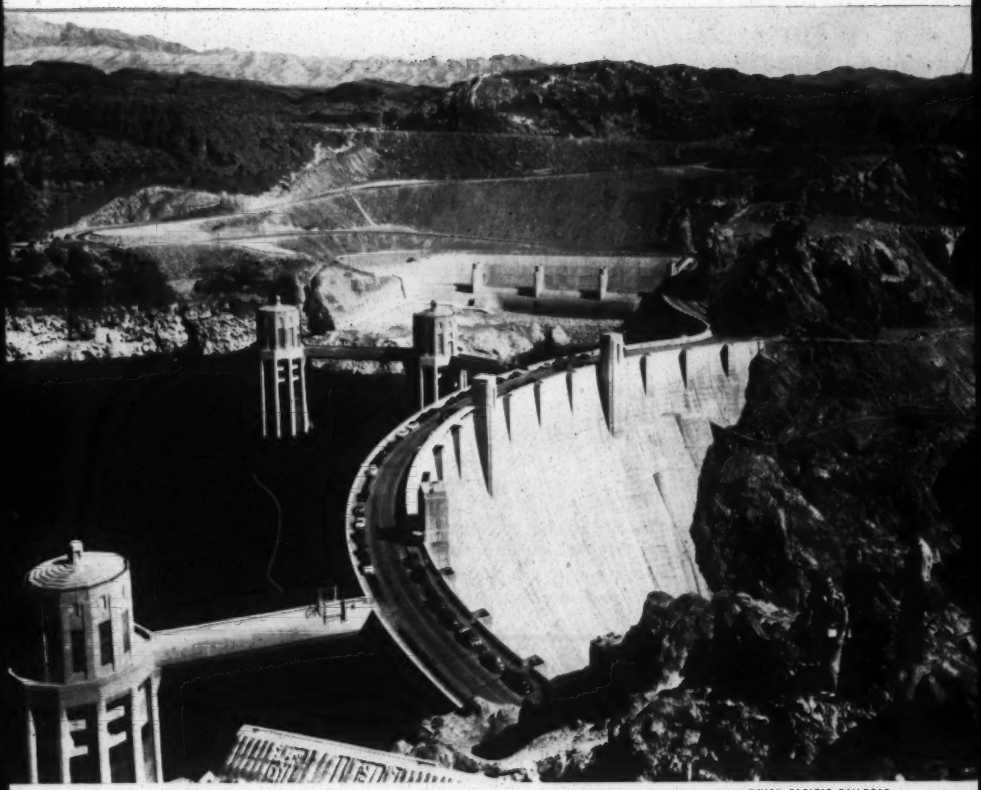


UNION PACIFIC RAILROAD

Hoover Dam Shackles Nature

POWERFUL Hoover Dam, pictured above, tamed the rampaging Colorado River to man's service. Standing in the Black Canyon on the Nevada-Arizona boundary, the colossus provides flood protection to the valleys downstream. Impounded water stored in Lake Mead irrigates some 650,000 acres under cultivation in southern California and southwestern Arizona, and over 400,000 acres in Mexico.

Brought to use in 1936, the dam's proportions are staggering. It stands 727 feet from base to crest. Its thickness at the base is greater than two football fields, end to end. The dam, power plant, and other structures contain enough concrete to pave a standard highway from New York to San Francisco. One elevator descends the equivalent of 44 floors—yet leaves its passengers still some 200 feet above the base.

In a near-desert area that knows but five inches of rain each year, Hoover Dam has brought irrigation and life. Its great power plants helped shoulder America's burdens of World War II, churning out more than half the energy required for war installations in Arizona, Nevada, and southern California. Now it nourishes the industrial development of the Pacific Southwest. By regulating the Colorado's flow, the dam assures water supply for household and industrial use in far away San Diego and Los Angeles.

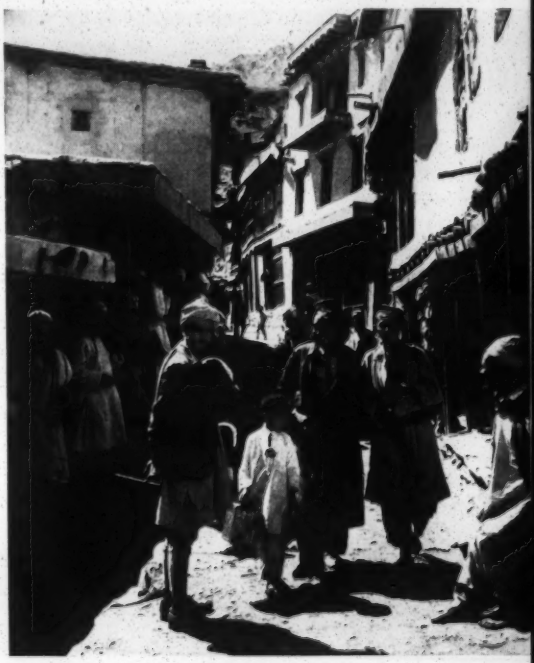
Vacationists enjoy Lake Mead, the inland sea that Hoover Dam, once called Boulder Dam, created. It affords swimming, boating, and fishing.—S.H.

UMI

ROUND TOWERS, called chortens, enclose a half-mile prayer wall where Ladakhi Buddhists read time-worn Tibetan inscriptions and send their devotions to heaven

shikaras and peddle the vegetables piled high at their feet. One buyer could be a retired Englishman living on a lavish houseboat. Another might be a carpet weaver whose shop overhangs one of Srinagar's winding canals. On the fringe of the city, mulberry trees yield cocoons for silk. Kashmiri women in near-by factories sort cocoons while machines spin silk thread, rich in color.

The river passes to Dal Lake, whose banks still guard pleasure gardens and pavilions built by Mogul emperors long ago. Fragile pink lotus flowers float dreamily. One remembers the Mogul words, "If there be a paradise on earth, this is it."—J.A.



KASHMIRIS MINGLE with Punjabis and Chinese in the narrow bazaar of Kargil, crossroads village of Ladakh

republic's geographical center, that a new national capital may someday be built—to ease overcrowding in mountain-rimmed Rio de Janeiro, present seat of government.

Northwest of Rio, the state of Minas Gerais seems built on minerals. Rich iron ore lies underfoot, paves village streets, and forms mountains. Mines yield gold, diamonds, quartz, bauxite, manganese, and probably other riches yet to be discovered.

The industrial center of Brazil—of all Latin America—is booming São Paulo, now believed to surpass Rio in size, counting more than three million people. They come from a variety of European backgrounds, these *Paulistas* —Italian, Spanish, German, British, French, and of course Portuguese. All are united by devotion to their glittering, surging metropolis, below.

São Paulo symbolizes Brazil's present growth. But the huge nation seems just awakening to its future.—E.P.

PHOTOS BY W. ROBERT MOORE, NATIONAL GEOGRAPHIC STAFF

São Paulo ranks as one of the world's fastest-growing cities (GSB Nov. 1, 1954)

ERICH HESS

Brazil, A Giant Still Growing

SAY the word "Brazil," and most people picture the scene above—Rio de Janeiro's phalanx of apartments facing a magnificent sweep of sand and surf. Yet more than 57,000,000 Brazilians who are *not* Rio residents might argue that there is a lot more to Brazil than Copacabana Beach.

Fourth largest nation in the world, Brazil could swallow the United States with an extra Texas thrown in. It covers nearly half of all South America, from the Amazon River Basin, steaming under the equator, to the cool uplands on the Uruguay border. Besides streamlined cities it is host to primitive Indian villages rising on stilts from Amazon banks, to placid rural settings where there is always time to rest beneath a tree (left) near a mellow, Portuguese colonial church.

Brazilians and their work vary with regions. In the north, sweat-drenched men, often stocky, half-breed Indians, tap rubber trees or cut timber from dense jungle. Coffee, cotton, sugar cane, cocoa, and tobacco grow in the northeast, the region that includes South America's eastern "hump." Drought frequently visits this scrubland, hence many acres are irrigated.

But the heart of Brazil's economy beats in the south where nearly two thirds of the 60,000,000 population dwell. Herds of fine cattle graze on western rangelands and the men that own and care for them (below) still wear the baggy pants and high boots of tradition. It is in this area, near the

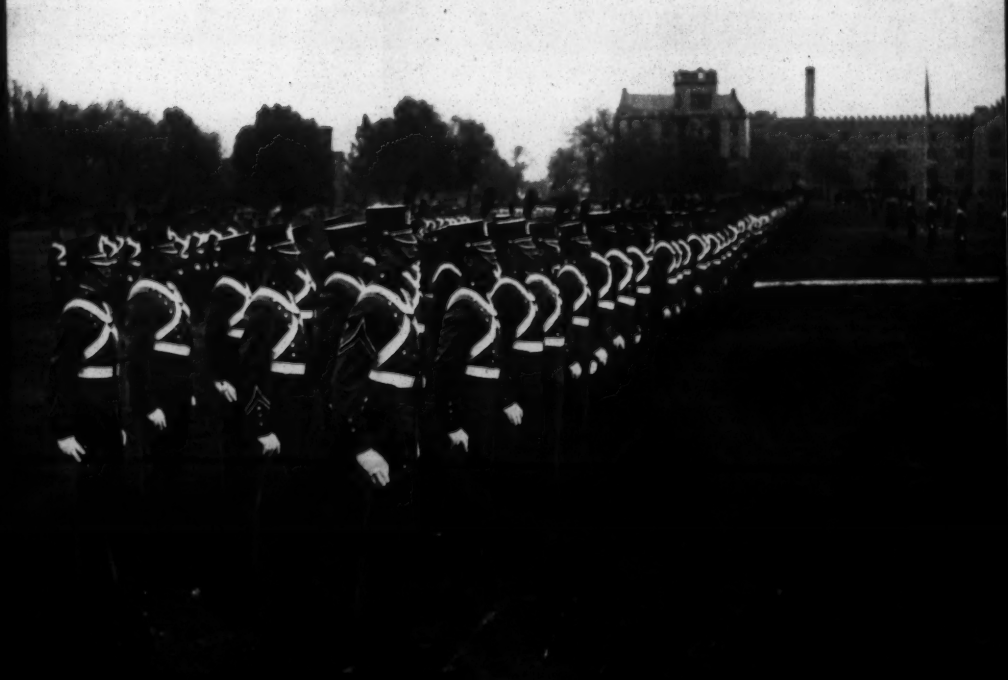
FROM COORDINATOR OF INTER-AMERICAN AFFAIRS, © JEAN MANZON

sight, or a city or village unfolds from lowland mists under your crouching mountain. You may see the ribbony Valley Pike. Once that was a mere trail connecting New York and Pennsylvania with the promised lands of Kentucky and Tennessee. Along it cracked the rifles of Daniel Boone and other pioneers. Later on, marauding Indians whooped at the cabins of settlers who moved in around the mid-18th century.

The keen eye of George Washington saw the Valley as a terrain America's destiny might hinge on—if need be. During the Revolution's dark hours he reflected that his little force might continue the war there indefinitely, even though the entire Atlantic seaboard be overwhelmed by British troops. Decades later, Stonewall Jackson's Civil War valley campaign proved how an army might fling surprises from the Valley's furrowed floor.

Valley people are deep-rooted in their limestone land. They take enormous pride in their crops, apples (above), cattle, scenery, industries, and Stonewall Jackson. He lies at Lexington, where he taught at Virginia Military Institute, below.

PHOTOGRAPHS BY JUSTIN LOCKE



Waynesboro, Virginia, nestles below Rock Fish Gap

Shenandoah Valley

Third in a series on United States valleys

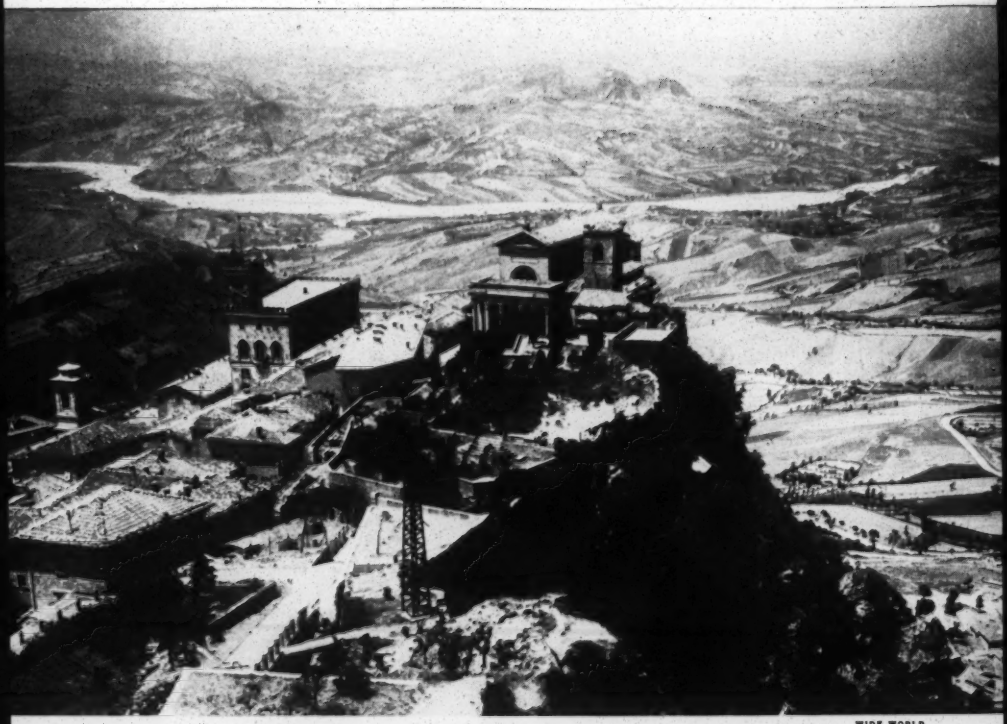
THE year was 1716, the place a mountain range overlooking a beautiful valley where a river, unlike most in North America, flows northeastward. Alexander Spotswood, governor of colonial Virginia, and his plumed Knights of the Golden Horseshoe gazed, enthralled, at the broad vista stretching to distant, mist-strewn ranges against the western sky. "We drank the King's Health in Champagne, and fired a volley."

Forty-six years earlier, explorer John Lederer had drunk merely of the view. Earlier yet, enchanted Indians thought such a sight fell from the heavens, and named it Shenandoah, "Daughter of the Stars."

Actually, the 110-mile-long Shenandoah Valley is the daughter of erosion. Eons ago, unresting waters from the Atlantic and Gulf of Mexico pushed in, covering the earth from New York to Alabama with a mountain-locked sea. After ages, the receding waters disclosed the Great Appalachian Valley. One strand of it, the Shenandoah, divides the Blue Ridge and the Alleghenies.

For some 50 miles Massanutten Mountain cuts the Valley in two, even divides the Shenandoah River into two branches. The North Fork drains the wider western valley, the South Fork wanders along the narrow eastern glen.

The Shenandoah is an autumn wonderland, best seen from elevations. Across tinted miles stretch acres of painted silence stippled by toy houses, barns, and cattle made motionless by distance. Sometimes the Shenandoah River comes into



WIDE WORLD

The World's Smallest Republic,
It Has Perched On A Mountain Peak
For Sixteen Centuries

San Marino

THE lofty nest of medieval buildings above are a landmark in northeastern Italy's Apennine Mountains. This is San Marino—world's smallest republic. Its 38 square miles covering craggy Mount Titano would fit inside some Texas ranches. Its towered capital, also called San Marino, crowns the peak.

Some 14,000 Marinese wrest a livelihood by exports of cattle, wine, building stone, silk, ceramics; and from tourists, whenever they come. Two members of its Grand and General Council serve as regents (right).

BERND LOHSE, THREE LIONS

UMI

Matthew Fontaine Maury, who revolutionized navigation, also taught at VMI. A famed graduate is General of the Army George C. Marshall, wartime Chief of Staff, former Secretary of State, and Life Trustee of the National Geographic Society. Sam Houston was Valley born. McCormick perfected his reaper there.

But conversations almost invariably return to the apple. Its cidery tang sweetens autumn air. The roll call of its varieties rings from orchard to orchard —York Imperial, Jonathan, Grimes Golden, Ben Davis, Delicious, and Stayman Winesap. Winchester boasts a three-and-a-half-million-bushel storage plant; in Frederick County alone are 201 orchards, bearing over 475,000 trees. Harvest time calls for recruits—hundreds of pickers. Fast ones fill 50 barrels a day. Hands and machines pack apple products; shippers send the fruit about the world.

In season, farm people peddle apples from wayside stands and munch them on their way to work. Some of the fruit comes from well-named Apple-pie Ridge between Martinsburg, West Virginia, and Winchester.

Autumn haze, like drifting wood smoke, beckons sight-seers to Shenandoah National Park. From the northern gateway at Front Royal, the park extends for 65 miles along the Blue Ridge crest to near industrial Waynesboro, reaching its top altitude of 4,049 feet at the summit of Hawksbill Mountain. After its authorization by Congress in 1926, the park was given 1,000 acres of land bought by the National Geographic Society. Nature lovers still delight there amidst over 700 species of trees, plants, shrubs, vines, and some 130 species of birds. Skyline Drive winds through the park.

JUSTIN LOCKE

STAUNTON, VIRGINIA, crowns hilly land in the Valley's midsection. Woodrow Wilson was born here, 101 years ago

Scenes would take weeks to see. There are water-carved caverns of Luray, Endless, Grand, Massanutten, Crystal, Shenandoah, and Skyline. And 215-foot-high Natural Bridge carries a highway between mountains. At Harrisonburg, "Turkey Capital of the East," over 1,000,000 birds annually gobble out their lives among sounds of stony brooks, modern machines, and mountain winds.—S.H.

ARMY AIR FORCE

Cattle, building stone, stamps help San Marino prosper

San Marino's midget budget stays healthy from sales of postage stamps to international collectors. The republic has neither an airport nor an airplane, yet it recently issued a 75-cent airmail stamp.

A stonecutter named Marinus is said to have fled a Dalmatian island to the Apennine Mountains in the fourth century, founding the little state. He left a maxim: "We do not want an inch of another's land." Marinese refusal to grab a few more acres offered by Napoleon may explain why they escaped being swallowed up in Italy's unification.

More recently, hard-scratching Marinese rented their mountain in entirety to an American movie company for a film about the Borgias. The setting reflects, at least, a natural invincibility. The heights are topped by three glowering old citadels, knitted together by thick walls. They form the coat of arms, page 227.

WIDE WORLD